GLOSSARY

ABATEMENT: The method of reducing the degree or intensity of pollution, also the use of such a method.

ABSORPTION LOSS (Irrigation): The initial loss of water from a canal or reservoir by wetting of the soil when water first enters the structure.

ACCESS ROAD: A vehicular travelway constructed to provide entry to an area.

ACID SOIL: Soil with a pH value less than 7.0. The term is usually applied to the surface layer or to the root zone unless specified otherwise.

ACRE-FOOT: The volume of water that will cover 1 acre to a depth of 1 foot.

AEROBIC: Growing or occurring in the presence of molecular oxygen (see anaerobic).

AGRICULTURAL POLLUTION: Liquid and solid wastes from all types of farming, including runoff from pesticides, fertilizers, and feedlots; erosion and dust from plowing; animal manure and carcasses; and crop residues and debris.

AIR POLLUTION: The presence the contaminants in the air in concentrations that prevent the normal dispersive ability of the air and that interfere directly or indirectly with man's health, safety, comfort, or the full use and enjoyment of his property.

AIR QUALITY STANDARDS: The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

ALGAE (sing.,alga): Simple plants, many microscopic, containing chlorophyll; forming the base of the food chain in aquatic environments. Some species may create a nuisance when environmental conditions are suitable for prolific growth.

ALKALINE: Having the properties of an alkali; opposite of acidic.

ALKALINE SOIL: Soil with a pH value greater than 7.0, particularly above 7.3 throughout most of the root zone, although the term is commonly applied to only the surface layer or horizon of a soil.

ALLOTMENT: An area designated for the use of a prescribed number of cattle or sheep, or by common use of both under one plan of management.

ALLUVIAL LAND: Areas of unconsolidated alluvium, generally stratified and varying

widely in texture, recently deposited by streams, and subject to frequent flooding; a miscellaneous land type.

ANAEROBIC: Growing or occurring in the absence of molecular oxygen (see aerobic).

ANGLE OF REPOSE: Angle between the horizontal and the maximum slope that a soil assumes through natural processes.

ANIMAL UNIT (A.U.): A measurement of livestock numbers based on the equivalent of a mature cow (approximately 1,000 pounds live weight); roughly one cow, one horse, one mule, five sheep, five swine, or six goats.

ANIMAL UNIT MONTH (A.U.M.): A measure of forage or feed requirement to maintain one animal unit for a period of 30 days.

ANNUAL PLANT: A plant that completes its life cycle and dies in 1 year or less.

AQUATIC PLANTS: Plants growing in or near water with true roots, stems, and leaves other than algae.

AQUIFER: A geologic formation or structure that transmits water in sufficient quantity to supply the needs for development; usually saturated sands, gravel, fractures, or cavernous and vesicular rock.

ARID: Regions or climates that lack sufficient moisture for crop production without irrigation. The limits or precipitation vary considerably according to temperature conditions, with an annual limit for cool regions of 10 inches or less and for tropical regions up to 15 to 20 inches.

ARTESIAN WATER: Water confined under enough pressure to cause it to rise above the level first encountered in drilling. Flowing artesian wells are produced when the pressure is sufficient to force the water above the land surface.

ASPECT: The direction that a slope faces.

AUTOMATED SYSTEM: An irrigation system using timers or self-propulsion to reduce labor requirements in the application of irrigation water.

AUXILIARY SPILLWAY: A dam spillway built to carry runoff in excess of that carried by the principal spillway.

AVAILABLE FORAGE: Forage that is accessible for animal consumption.

BACKFILL: The material used to refill a ditch or other excavation, or the process of doing so.

BASE MAP: A map showing certain basic data to which other information may be added.

BASIN: 1. In hydrology, the area drained by a river. 2. In irrigation, a level plot of field, surrounded by dikes, which may be flood irrigated.

BASIN IRRIGATION: A method of irrigation in which a level or nearly level area, surrounded by an earth ridge or dike, is flooded with water.

BEDLOAD: The sediment that moves by sliding, rolling, or bounding on or very near the streambed.

BERM: A shelf or flat area that breaks the continuity of a slope.

BIENNIAL PLANT: A plant that requires 2 years to complete its life cycle.

BIOCHEMICAL OXYGEN DEMAND (BOD): A measure of the oxygen used in meeting the metabolic needs of aerobic micro-organisms in water rich in organic matter; also called biological oxygen demand.

BLOOM: A readily visible concentrated growth or aggregation of minute organisms, usually algae, in bodies of water.

BORDER DIKES: Earth ridges built to guide or hold irrigation water within prescribed limits in a field; a small levee.

BORDER DITCH: A ditch used as a border of an irrigated strip or plot; water is spread from one or both sides of the ditch along its entire length.

BORDER IRRIGATION: A surface method of irrigation by flooding between border dikes.

BRACKISH: Slightly salty; applied to water with a saline content that is intermediate between that of freshwater streams and sea water.

BROADCAST SEEDING: Scattering seed on the surface of the soil, in contrast to drill seeding, in which seeds are placed in rows in the soil.

BROAD-CRESTED WEIR: An overflow structure for measuring water, often rectangular in cross section, in which the water adheres to the surface of the crest rather than springing clear.

BROWSE: Twigs or shoots, with or without attached leaves, of shrubs, trees, or woody vines available as forage for domestic and wild browsing animals.

BROWSE LINE: The line on woody plants marking the height to which browsing animals have removed browse.

BRUSH MANAGEMENT: Management and manipulation of stands of brush by mechanical, chemical or biological means or by prescribed burning.

BRUSH MATTING: 1. A matting of branches placed on badly eroded land to conserve moisture and reduce erosion while trees or other vegetative covers are being established. 2. A matting of mesh wire and brush used to retard streambank erosion.

BUFFER STRIPS: Strips of grass or other erosion-resisting vegetation between or below cultivated strips or fields.

CARRYING CAPACITY: 1. In recreation, the amount of use a recreation area can sustain without deterioration of its quality. 2. In wildlife, the maximum number of animals an area can support during a given period of the year. See grazing capacity.

CESSPOOL: A lined and covered excavation in the ground which receives the discharge of domestic sewage or other organic wastes from a drainage system, so designed as to retain the organic matter and solids by permitting the liquids to seep through the bottom and sides.

CHANNEL IMPROVEMENT: Improvement of the flow characteristics of a channel by clearing, excavation, realignment, lining, or other means in order to increase its capacity.

CHANNEL STABILIZATION: Erosion prevention and stabilization of velocity distribution in a channel using jetties, drops, revetments, vegetation and other measures.

CHECK: A structure, permanent or portable, designed to raise or control the water surface in a channel or ditch.

CHECK DAM: Small dam constructed in a gully or other small watercourse to decrease streamflow velocity, minimize channel scour and promote deposition of sediment.

CHUTE: A high-velocity, open channel for conveying water to a lower level without erosion.

CLEAN TILLAGE: Cultivation of a field so as to cover all plant residues and to prevent the growth of all vegetation except the particular crop desired.

CLEARCUTTING: A method of cutting that removes the entire timber stand on the area

cut.

CLEARING AND SNAGGING: The clearing of trees and brush, and the removal of sediment bars, logs, snags, boulders, debris and other obstructions from the flow area of channels in order to improve flow characteristics.

CLOSED DRAIN: Subsurface drain, tile, or perforated pipe that receives surface water through surface inlets.

COLIFORM: A group of bacteria used as an indicator of sanitary quality in water. The total coliform group is an indicator of sanity significance, because the organisms are normally present in large numbers in the intestinal tracts of humans and other warm-blooded animals.

COLLUVIUM: Soil material or rock fragments moved by creep, slide, or local wash and deposited at the bases of steep slopes.

COMMON USE (Range): Grazing use by more than one kind of animal, either at the same time or at different times within the same growing season.

COMPACTION: 1. In geology, the changing of loose sediment into hard, firm rock. 2. In soil engineering, the process by which the solid grains are rearranged to decrease void space and bring them into closer contact with one another, thereby increasing the weight of solid material per cubic foot. 3. In solid waste disposal, reducing the bulk of solid waste by rolling and tamping.

COMPLETE PROTECTION: The withdrawal of all grazing animals from a given range.

COMPREHENSIVE PLAN: A report from a governmental planning agency that describes how its areas of jurisdiction should be developed, expressing both policies and a coordinated plan for public and private land use, a transportation system, and public services, and facilities. Also called comprehensive development plan, general plan, master plan.

COMPREHENSIVE PLANNING PROGRAM: A continuing process which includes research on the conditions and trends in physical, social, and economic development; preparation and adoption of a comprehensive plan; programming of capital improvements; and initiation of the regulatory and administrative measures for implementation and maintenance of the plan.

CONCENTRATION: The amount of suspended particles in a unit volume as specified for a given temperature and pressure.

CONCRETION: A local concentration of a chemical compounds, such as calcium carbonate or iron oxide, in the form of an aggregate or nodule of varying size, shape, hardness and color.

CONDUIT: Any channel intended for the conveyance of water, whether open or closed.

CONJUNCTIVE WATER USE: The joining together of two sources of irrigation water, such as ground water and surface water, to serve a particular piece of land.

CONSERVATION: The protection, improvement and use of natural resources according to principles that will assure their highest economic or social benefits.

CONSERVATION CROPPING SYSTEM: Crop production using a combination of cultural and management practices that will protect the soil from erosion and improve or maintain its physical condition.

CONSERVATION DISTRICT: A public organization created under state law as a special-purpose district to develop and carry out a program of soil, water and related resources conservation, use, and development within its boundaries; usually a subdivision of state government with a local governing body; often called a Soil Conservation District or a Soil and Water Conservation District.

CONSERVATION PLAN FOR FARM, RANCH OR NONAGRICULTURAL LAND UNIT: The properly recorded decisions of the cooperating landowner or operator on how he plans, within practical limits, to use his land within its capability and to maintain or improve the soil, water and other resources.

CONSERVATION PLAN MAP: An aerial photograph(s) covering a farm or ranch with planned land use, field boundaries, fences, etc., portrayed thereon.

CONSERVATION STANDARDS: Standards for various types of soils and land uses, including criteria, techniques and methods for the control of erosion and sediment resulting from land disturbing activities.

CONSERVATION TILLAGE: An tillage system which reduces loss of soil or water compared to unridged or clean tillage.

CONSUMPTIVE USE: The quantity of water used and transpired by vegetation plus that evaporated. See evapotranspiration.

CONTAMINATION: The act of polluting or making impure; used to indicate chemical, sediment, or bacteriological impurities.

CONTINUOUS GRAZING: Domestic livestock grazing a specific area throughout the

grazing season. Not necessarily synonymous with year-long grazing.

CONTOUR: 1. An imaginary line on the surface of the earth connecting points of the same elevation. 2. A line drawn on a map connecting points of the same elevation.

CONTOUR DITCH: Irrigation ditch laid out approximately on the contour.

CONTOUR FARMING: Conducting field operations such as plowing, planting, cultivating and harvesting on the contour.

CONTOUR FLOODING: Method of irrigating by flooding from contour ditches.

CONTOUR-FURROW IRRIGATION: Applying irrigation water in furrows that run across the slope with a forward grade in the furrows.

CONTOUR FURROWS: Furrows plowed approximately on the contour to prevent runoff and increase infiltration.

CONTOUR INTERVAL: The vertical distance between contour lines.

CONTROLLED BURNING: The use of fire for burning a predetermined area to accomplish some desired result.

CONTROL STRUCTURE: A regulating structure to maintain water at a desired elevation, usually installed in gravity flow systems.

CONVENTIONAL TILLAGE: The combined primary and secondary tillage operations normally performed in preparing a seedbed for a given crop grown in a given geographical area.

CONVEYANCE LOSS: Loss of water from delivery systems during conveyance, including operational losses and losses due to seepage, evaporation, and transpiration by plants growing in or near the channel.

CORE TRENCH: Excavation for a core wall in the construction of an earth embankment.

CORE WALL: Wall of masonry, sheet piling or compacted earth placed near the center of a dam or embankment to reduce seepage.

CORROSION: The wearing away of earth materials through the cutting, scraping scratching and scouring effects of solid material carried in the currents of water or air.

CORROSION: The solution of rocks and other materials by chemical action.

CORRUGATION IRRIGATION: A partial surface flooding method of irrigation, normally used with drilled crops, where water is applied in small graded channels or furrows so spaced that an adequate lateral spread is obtained by the time the desired amount of water has entered the soil.

COVER CROP: A close-growing crop grown primarily for the purpose of protecting and improving soil between periods of regular crop production or between trees and vines in orchards and vineyards.

COW MONTH: The grazing needed to maintain a mature cow in good condition for 30 days.

CREST: 1. The top of a dam, dike, spillway or weir, frequently restricted to the overflow portion. 2. The summit of a wave or peak of a flood.

CRIB DAM: A barrier of timber forming bays or cells that are filled with stone or other heavy material.

CRITICAL AREA: A severely eroded sediment producing area that requires special management to establish and maintain vegetation in order to stabilize soil conditions.

CRITICAL REACH: The point in the receiving stream below a discharge point at which the lowest dissolved oxygen level is reached and recovery begins.

CROP RESIDUE: The portion of a plant or crop left in the field after harvest.

CROP RESIDUE MANAGEMENT: Use the of that portion of the plant or crop left in the field after harvest for protection or improvement of the soil.

CROP ROTATION: The growing of different crops in recurring succession on the same land.

CULTURAL EUTROPHICATION: Acceleration by man of the natural process of enrichment (aging) of bodies of water.

CUT: Portion of land surface or area from which earth has been removed or will be removed by excavation; the depth below original ground surface to excavated surface.

CUT-AND-FILL: Process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

CUTOFF: 1. Wall, collar, or other structure, such as a trench, filled with relatively

impervious material intended to reduce seepage of water through porous strata. 2. In river hydraulics, the new and shorter channel formed either naturally or artificially when a stream cuts through the neck of a bend.

DAM: A barrier to confine or raise water for storage or diversion, to create a hydraulic head, to prevent gully erosion, or for retention of soil, rock, or other debris.

DAM, DIVERSION: A structure constructed to divert part or all of the water from a waterway or stream into a different watercourse, irrigation canal or ditch, or a waterspreading system. For sediment control purposes, a diversion dam may divert runoff from an unstable eroding watercourse into a stable nonerosive watercourse. Diversion dams may be constructed of compacted earth-fill, concrete, masonry or timber. Outlet works must provide positive control of the water to be diverted. By-pass works must be capable of passing all flows needed to satisfy downstream owners in cases where all water is not diverted. This may require a system of weirs, orifices or gates. An emergency spillway is required to pass maximum flows in excess of the capacity of the diversion and by-pass system unless such system is designed to handle such maximum flows.

DEBRIS BASIN: A dam constructed across a waterway or at other suitable locations to form a silt or sediment basin, thus preventing sediment damages to downstream areas. Basins can be excavated or formed by a combination of earthfill dam and excavation. An ungated pipe through the dam with a perforated riser within the basin and above the sediment storage level will permit the passage of runoff waters. An emergency spillway should be provided to pass flows exceeding the capacity of the basin without overtopping the dam. Other systems of controlling the flow of water through the dam may be used depending on individual sites, however the pipe and riser combination are most common. Debris basins may be temporary during a construction period or may be permanent, some of which may have dual purpose by storing both debris and water.

DEBRIS DAM: A barrier built across a stream channel to retain rock, sand, gravel, silt or other material.

DEBRIS GUARD: Screen or grate at the intake of a channel, drainage or pump structure for the purpose of stopping debris.

DECOMPOSITION: The breakdown of organic waste materials by bacteria; may be aerobic or anaerobic.

DEEP PERCOLATION: Water that percolates below the root zone and cannot be used by plants.

DEFERRED GRAZING: The discontinuance of livestock grazing for a specified period of

time during the growing season to promote plant reproduction, establishment of new plants or restoration of vigor by old plants. The postponing or resting of grazing land provides more cover for soil protection while providing a feed reserve for fall and winter grazing or emergency use.

DEFERRED-ROTATION GRAZING: A systematic rotation of deferred grazing.

DEGRADATION: To wear down by erosion, especially through stream action.

DEGREE OF USE: Utilization or consumption of plant growth in respect to weight--may be expressed in qualitative terms such as unused, slight, moderate, full, close, severe, over extreme, destructive, etc. or as percent of weight for either an individual plant or the vegetation as a whole.

DELIVERY BOX (Irrigation): Structure diverting water from a canal to a farm unit, often including measuring devices.

DENSITY: The number of plants or specific plant parts per unit area of ground surface.

DEPOSITION: The accumulation of material dropped because of a slackening movement of the transporting agent (water or wind).

DESALINIZATION: 1. Removal of salts from saline soils, usually by leaching. 2. The conversion of salt water to sweet water. Also spelled desalination.

DESILTING AREA: An area of grass, shrubs or other vegetation used for inducing deposition of silt and other debris from flowing water; located above a stock tank, pond, field or other area needing protection from sediment accumulation. See filter strip.

DESIRABLE PLANT SPECIES: Species of moderate to high palatability that are preferred by animals. Also, species that are beneficial with respect to soil and water conservation.

DETACHMENT: The removal of transportable fragments of soil material from a soil mass by an eroding agent, usually falling raindrops, running water or wind. Through detachment, soil particles or aggregates are made ready for transport - soil erosion.

DETENTION DAM: A dam constructed for the purpose of temporary storage of streamflow or surface runoff and for releasing stored water at controlled rates.

DETERIORATED RANGE: A range which has regressed or may still be regressing from its production potential; can be caused by many factors but is usually due to continued

overuse by livestock, wildlife, rodents or insects and certain types of erosion.

DIKE: An embankment to confine or control water, especially one built along the bank of a river to prevent overflow of lowlands; a levee.

DISCHARGE: Rate of flow; a volume of fluid passing a point per unit time, commonly expressed as cubic feet per second, million gallons per day, gallons per minute, or cubic meters per second.

DISCHARGE POINT: A location at which effluent is released into a receiving stream.

DISPOSAL FIELD: Area used for spreading liquid effluent for separation of wastes from water, degradation of impurities and improvement of drainage waters. Also called infiltration field.

DISSOLVED SOLIDS: The total amount of dissolved material, organic and inorganic, contained in water or wastes. Excessive dissolved solids make water unpalatable for drinking and unsuitable for industrial uses.

DISTRIBUTION SYSTEM: 1. System of ditches and their appurtenances which convey irrigation water from the main canal to farm units. 2. Any system that distributes water within a farm.

DIVERSION: A channel with a supporting ridge on the lower side constructed on a gradient across the slope to divert water from areas being damaged to sites where it can be used or disposed of safely.

DIVERSION DAM: A barrier built to divert part or all of the water from a stream into a different course.

DIVERSION TERRACE: Individually designed channels across a hillside used to protect bottomland from hillside runoff or, when placed above a terrace system, to protect against runoff from an unterraced area; may also divert water out of active gullies, protect farm buildings from runoff, reduce the number of waterways, and sometimes used in connection with stripcropping to shorten the length of slope so that the strips can effectively control erosion. See terrace.

DRAIN SYSTEM STRUCTURE: An auxiliary structure installed in a subsurface drainage system to control the flow of water and reduce erosion; this includes pipe drops, junction boxes, catch basins, sand traps and other special purpose structures; used to protect ends of drain lines, control grade and velocity, regulate flows, collect sediment and debris and prevent erosion in drainage channels; normally constructed of reinforced concrete, concrete block, stone, masonry or other suitable prefabricated materials.

DRILL SEEDING: Planting seed with a drill in relatively narrow rows, generally less than a foot apart. See broadcast seeding.

DROP STRUCTURE: A structure for dropping water to a lower level and dissipating its surplus energy; a drop may be vertical or inclined.

DUGOUT: A natural or artificial depression that impounds water and differs from a reservoir in that a dam is not relied upon to back up water.

EARTH DAM: Dam constructed of compacted soil materials.

ECOLOGY: The study of interrelationships of organisms to one another and to their environment.

ECOSYSTEM: A community, including all component organisms, together with the environment, forming an interacting system.

EFFLUENT: 1. Solid, liquid, or gas wastes which enter the environment as a by-product of man-oriented processes. 2. The discharge or outflow of water from ground or sub-surface storage.

EMERGENCY SEEDING OF BURNED AREAS: Stabilizing soils after wildfire burns by selecting and seeding adapted grasses and legumes. Such planting prevents soil erosion and reduces flood silt and sedimentation damage on or below burned areas.

EMERGENCY SPILLWAY: A spillway used to carry runoff exceeding a given design flood.

ENCLOSURE: An area fenced to confine animals.

ENVIRONMENT: The sum total of all the external conditions that may act upon an organism or community to influence its development or existence.

ENVIRONMENTAL IMPACT STATEMENT (EIS): A document prepared by a federal or state agency or a private firm detailing the environmental impact of a proposed law, construction project or other major action that may significantly affect the quality of the

environment; required by the National Environmental Policy Act and various state environmental laws.

EPHEMERAL STREAM: A stream or portion of a stream that flows only in direct response to precipitation, and receives little or no water from springs, snow or other sources; the channel is at all times above the water table.

EROSION: 1. The wearing away of land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. The following terms are used to describe different types of erosion.

ACCELERATED EROSION: Erosion much more rapid than geologic erosion, mainly caused by the activities of man or other animals or by a natural event, such as fire, that exposes a bare surface.

GEOLOGICAL (NATURAL) EROSION: The normal or natural erosion caused by geological processes acting over long geologic periods and resulting in the wearing away of mountains, the building up of floodplains, costal plains, etc.

GULLY EROSION: Removal of soil (sometimes to considerable depths) from narrow areas over a short period of time.

EUTROPHICATION: An aging process in lakes characterized by an abundant growth of aquatic plants and waters deficient in oxygen. The process is usually accelerated by surface runoff containing nitrogen and phosphorus.

EVAPOTRANSPIRATION: The combined loss of water due to evaporation from the soil surface and transpiration from plants.

EXCLOSURE: An area fenced to exclude animals.

FAUNA: The animal life of a region.

FERTILIZER: Any organic or inorganic material of natural or synthetic origin that is added to a soil to supply elements essential to plant growth.

FIELD CAPACITY: The amount of water retained in a soil or in solid wastes after it has been saturated and has drained freely. In soils, also called field moisture capacity (obsolete in technical work) and is usually expressed as a percentage of the ovendry weight of the soil. In waste management also called moisture holding capacity.

FILTER STRIP: Strip of permanent vegetation above farm ponds, diversion terraces and other structures to retard flow of runoff water, causing deposition of transported material, and thereby reducing sediment flow. See desilting area.

FIRE BREAK: A strip of bare land or fire retarding vegetation used to check creeping or running fires; can serve as a line from which to work and facilitate the movement of men and equipment during fire suppression activities.

FISH STREAM IMPROVEMENT: Improving channels of perennial streams for fish habitat by providing shade and deepening and altering stream flow characteristics. Land treatment measures are applied to watersheds to control erosion and reduce sedimentation in stream channels.

FIXATION: Soil processes in which certain chemical elements essential for plant growth are converted from soluble or exchangeable form to a less soluble or nonexchangeable form (i.e. phosphate fixation).

FLOOD IRRIGATION: The application of irrigation water where the entire soil surface is covered by a sheet of water; called "controlled flooding" when water is impounded or the flow is directed by border dikes, ridges or ditches.

FLOODPLAIN: A nearly level alluvial plain that borders a stream channel and is subject to flooding unless protected artificially.

FLORA: The plant life of a region.

FORAGE: All browse and herbaceous food that is available to livestock or game animals; used for grazing or harvested for feeding.

FORAGE PRODUCTION: The weight of forage produced within a designated time period on a given area; may be expressed as either green, air-dry or oven-dry.

FROST ACTION: Freezing and thawing of soil moisture. Frost action can damage structures and plant roots.

FURROW IRRIGATION: A partial surface flooding method of irrigation normally used with clean-tilled crops where water is applied in furrows or rows of sufficient capacity to contain the designed irrigation stream.

GABION: A rectangular or cylindrical wire mesh cage filled with rock and used as a protecting apron, revetment, etc., against erosion.

GATE (Irrigation): Structure or device for controlling the flow rate into or from a canal, ditch or pipe.

GRADE: 1. The slope of a road, channel or natural ground. 2. The finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction like paving or laying a conduit.

GRADE STABILIZATION STRUCTURE: A structure for the purpose of stabilizing the grade of a gully or other watercourse, thereby preventing further headcutting or lowering of the channel grade.

GRADIENT: Change of elevation, velocity, pressure or other characteristics per unit length; slope.

GRASSED WATERWAY: A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from cropland.

GRAZING CAPACITY: The maximum stocking rate possible without inducing damage to vegetation or related resources.

GRAZING SEASON: A period of grazing to obtain optimum use of the forage resource. On public lands, an established period for which grazing permits are issued.

GRAZING SYSTEM: The manipulation of livestock grazing to accomplish a desired result.

GREENBELT: A strip of land kept in its natural or relatively undeveloped state or in agricultural use and which serves to break up the continuous pattern of urban development; frequently planned around the periphery of urban settlements.

GROUND COVER: Grasses or other plants grown to keep soil from being blown or washed away.

GROUND WATER: All subsurface water comprising the zone of saturation.

GROWING SEASON: The period and/or number of days between the last freeze in the spring and the first frost in the fall.

GULLY: A furrow, channel or miniature valley, usually with steep sides, through which water commonly flows during and immediately after rains or snow melt.

GULLY CONTROL PLANTINGS: The planting of forage, legumes or woody plants in gullies to establish or re-establish a vegetative cover adequate to control runoff and erosion and incidentally produce useful products.

HEAD GATE: A water control structure; the gate at the entrance to a conduit.

HEADWATER: 1. The source of a stream. 2. The water upstream from a structure or point on a stream.

HEAVY METALS: Metals present in municipal and industrial wastes that pose long-term environmental hazards including boron, cadmium, cobalt, chromium, copper, mercury, nickel, lead and zinc.

HEAVY USE AREA PROTECTION: Protecting heavily used areas by establishing vegetative cover, surfacing with suitable materials (asphalt, concrete, gravel, cinders, bark) or installing needed structures.

HERBICIDE: A chemical substance uses for killing plants, especially weeds.

HOLDING TANK: A prefabricated structure of concrete, steel or like materials constructed to store liquid manure from animals or other wastes.

HYDROSEEDING: Hydraulic dissemination of seed in a water medium; mulch, lime, and fertilizer can be incorporated into the sprayed mixture.

IMPERVIOUS SOIL: A soil through which water, air or roots cannot penetrate.

IMPOUNDMENT: Generally, an artificial collection or storage of water, as a reservoir, pit, dugout or sump. See reservoir.

INTAKE RATE: The rate of entry of water into soil.

INTERMITTENT STREAM: A stream or portion of a stream that flows only in direct response to precipitation, and receives little or no water from springs and snow melt or other sources. It is dry for a large part of the year, ordinarily more than 3 months.

INTRODUCED SPECIES: A species not part of the original fauna or flora of a particular area.

IRRIGATION LATERAL: A branch of the main canal conveying water to farm ditches.

IRRIGATION SYSTEM, SURFACE AND SUBSURFACE: A planned system for the efficient distribution of irrigation water by surface means, such as furrows, borders, contour levees or contour ditches, or by subsurface means; systems must be carefully planned and installed to obtain optimum irrigation efficiency and to eliminate or minimize erosion.

IRRIGATION SYSTEM TAILWATER RECOVERY: A water runoff collection and storage system to provide a constant quantity of water back to the initial system or to another field. Water is applied to the rows at the same rate for the entire irrigation period. Advance time should equal irrigation recession time as nearly as possible. Recession time is usually one-fourth of the entire irrigation period.

IRRIGATION STRUCTURE: Any structure or device necessary for the proper conveyance, control, measurement or application of irrigation water.

IRRIGATION WATER MANAGEMENT: The use and management of irrigation water where the quantity of water used for each irrigation is determined by soil moisture-holding capacity and crop needs; water is applied efficiently and significant erosion and water loss does not occur. Irrigation water management is applicable to all methods of irrigation.

JETTY: A structure built of rocks or other material extending into a stream or into the sea to induce scouring or bank building, or for protection.

KEY MANAGEMENT SPECIES: Major forage species on which management should be based.

LAGOON: In sewage treatment, a reservoir or pond built to contain water and animal wastes until they can be decomposed either by aerobic or anaerobic processes.

LAND CAPABILITY: The suitability of land for use without permanent damage; involves consideration of the risks of erosion and difficulties in land use owing to physical land characteristics including climate.

LAND DISTURBING ACTIVITY: Any land change which may result in soil erosion from water or wind and the movement of sediments into water or onto land, including tilling, clearing, grading, excavating, etc.

LAND LEVELING: The process of shaping the land surface for better movement of water and machinery over the land; also called land forming, land shaping or land grading.

LAND SMOOTHING: Removing mounds, depressions and other surface irregularities by use of special equipment in order to improve drainage, provide more uniform cultivation and improve equipment operation and efficiency. It is not necessarily an erosion control practice in itself but a supporting practice for other erosion control practices.

LEACHING: The removal of soluble materials from the soil by percolating waters.

LINED WATERWAY OR OUTLET: A waterway or outlet with an erosion resistant lining of concrete, stone or other permanent material to eliminate erosion from the waterway. This practice is applicable to channels where the capacity requirements do not exceed 100 c.f.s. It is also applicable as a spillway outlet for earthfill dams.

MECHANICAL PRACTICES: Soil and water conservation practices that primarily change the surface of the land or that store, convey, regulate or dispose of runoff water without excessive erosion.

MINE DUMPS: Overburden and other waste materials from ore and coal mines, quarries or smelters, usually with little or no vegetative cover. A miscellaneous land type.

MINIMUM TILLAGE: The amount of tillage required to create the proper soil condition for seed germination and plant establishment.

MULCHING: Applying plant residues or other suitable materials not produced on the site to the soil surface for erosion control; also used to help establish plant cover and prevent surface crusting and compaction.

MULTIPLE LAND USE: Harmonious use of lands for more than one of the following purposes: grazing of livestock, wildlife production, recreation, wildlife habitat and timber production; not necessarily the combination of uses that will yield the highest economic return or greatest unit output.

NATIVE PASTURE: Land on which the climax plant community is forest, but which is used or managed primarily for the production of native species for forage.

NATURAL REVEGETATION: Natural re-establishment of plants - propagation of new plants over an area by natural processes.

NITRIFICATION: The biological oxidation of ammonium to nitrate and the further oxidation of nitrite to nitrate.

NONPOINT POLLUTION: Pollution whose sources cannot be pinpointed; best controlled by proper soil, water and land management practices.

NONRENEWABLE NATURAL RESOURCES: Natural resources that, once used, cannot be replaced.

NOTILL: The placing of seeds in a cut below the soil surface to create the proper soil coverage for seed germination with little or no disturbance on the surface.

NOXIOUS SPECIES: An undesirable plant species that is unwholesome to the range or animal. Not to be confused with species declared noxious by certain laws.

NUTRIENTS: Elements or compounds such as carbon, oxygen, nitrogen, phosphorous, etc., which are essential for the growth and development of plants and animals.

OPEN DRAIN: Natural watercourse or constructed open channel that conveys drainage water.

OPEN RANGE: An extensive grazing area on which the movement of livestock is unrestricted.

OUTLET: Point of water disposal from a stream, river, lake, tidewater, or artificial drain.

OVERBURDEN: The earth, rock and other materials that lie above a mineral deposit.

OVERSTOCKING: Placing a number of animals on a given area that will result in overuse at the end of the planned grazing period.

OVERSTOCKING (Forestry): Too many trees/acre for individual trees to be healthy or vigorous.

OVERUSE: Excessive use of the current year's growth, resulting in range deterioration or overgrazing, if continued.

OXIDATION POND: A man-made lake or pond in which organic wastes are reduced by bacterial action; often oxygen is bubbled through the pond to speed the process.

PARTICULATES: Solid or liquid particles in the air or in an emission including dust, smoke, fumes, mist, spray and fog.

PASTURE: An area devoted to the production of native or introduced forage and harvested by grazing.

PASTURE AND HAYLAND MANAGEMENT: The proper treatment and use of pasture and hayland; includes grazing and harvesting methods to maintain or improve the quality and quantity of plants for forage and to protect the soil.

PASTURE PLANTING: Establishing adapted herbaceous species on land to be treated and grazed as tame pasture.

PERCENT USE: Grazing use of current growth, usually expressed as a percent of weight removed.

PERCOLATION: The downward movement of water through soil, especially the downward flow of water in saturated or nearly saturated soil at hydraulic gradients of the order of 1.0 or less.

PERENNIAL PLANT: A plant that normally lives 3 or more years.

PEST: "Pest" means, but is not limited to any insect, fungus, rodent, nematode, snail, slug, weed and any form of plant or animal life or virus (except virus on or in living man or other animal) which is normally considered to be a pest or which the executive director may declare to be a pest (NRS 555.2665).

PESTICIDE: "Pesticide" means:
1. Any substance or mixture of substances, including any living organisms or any product derived therefrom or any fungicide, herbicide, insecticide, nematocide or rodenticide, intended to prevent, destroy, control, repel, attract or mitigate any insect, rodent, nematode, snail, slug, fungus, weed and any other form of plant or animal life or virus (except virus on or in living man or other animals) which is normally considered to be a pest or which the executive director may declare to be a pest.

2. Any substance or mixture of substances intended to be used as a plant regulator, defoliant or desiccant, and any other substances intended for such use as may be named by the executive director by regulation after calling a public hearing for that purpose (NRS 555.267).

pH: A numerical measure of acidity or hydrogen ion activity. Neutral is pH 7.0. pH values below 7.0 are acid; values above 7.0 are alkaline.

PHREATOPHYTE: A plant whose roots are in or very near the water table.

PLANNED GRAZING SYSTEM: A system of grazing in which two or more grazing units are alternately rested in a planned sequence over a period of years. The resting period may be throughout the year or during the growing season of the key species.

PLAYA: A shallow central basin of a plain where water gathers after a rain and is evaporated.

POINT SOURCE (Pollution): A stationary source of pollution, such as a smoke stack or discharge pipe. See nonpoint pollution.

POLLUTION: The condition caused by the presence in the environment of substances of such character and in such quantities that the quality of the environment is impaired or rendered offensive to life. See air pollution, water pollution.

POND, WASTEWATER STABILIZATION: A natural or artificial pond into which untreated or partially treated wastewater is discharged and in which natural purification and stabilization processes take place under the influence of sunlight, air, and biological activity. See lagoon.

PRIMARY WASTE TREATMENT: The first stage in wastewater treatment in which substantially all floating or settleable solids are mechanically removed by screening and sedimentation.

PROPER GRAZING USE: Grazing ranges and pastures in a manner that will maintain adequate cover for soil protection and maintain or improve the quality and quantity of

desirable vegetation.

RANGE: All land producing native forage for animal consumption, and lands that are revegetated naturally or artificially to provide a forage cover that is managed like native vegetation. Generally considered as land that is not cultivated.

RANGE CONDITION: The state and health of the range based on what that range is naturally capable of producing.

RANGE IMPROVEMENT: Any structure or excavation to facilitate management or range or livestock. Also an increase in the grazing capacity of range.

RANGE INVENTORY: An itemized list of resources of a management area such as range sites, range condition classes, range condition trends, range use, estimated proper stocking rates, physical developments and natural conditions such as water, barriers, etc.
RANGE MANAGEMENT: The art and science of planning and directing range use to obtain sustained maximum animal production, consistent with perpetuation of the natural resources. See multiple use.

RANGE RENOVATION: Improving rangeland by discing or other mechanical means.

RECHARGE: Process by which water is added to the zone of saturation.

RECLAMATION: The process of reconverting disturbed lands to their former uses or other productive uses.

RESERVOIR: Impounded body of water or controlled lake in which water is collected or stored.

RESIDUE: Material that remains after gases, liquids, or solids have been removed.

RESTORATION: The process of restoring site conditions as they were before the land disturbance.

RETURN FLOW: That portion of the water diverted from a stream that finds its way back to the stream channel either as surface or underground flow.

REVEGETATION: The re-establishment or improvement of vegetation through either natural or mechanical means.

REVETMENT: Facing of stone or other material, either permanent or temporary, placed along the edge of a stream to stabilize the bank and to protect it from the erosive action of the stream.

RIPARIAN AREA: Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody.

RIPRAP: Broken rock, cobbles or boulders placed on earth surfaces, such as the face of a dam or the bank of a stream, for protection against the erosive action of water; also brush or pole mattresses, brush, stone or other similar materials used for soil erosion control.

RUNOFF: That portion of the precipitation on a drainage area that is discharged from the area in stream channels or through the ground water system.

SANITARY LANDFILL: A site on which solid wastes are disposed of in a manner that protects the environment; wastes are spread in thin layers, compacted to the smallest practical volume, and covered with soil.

SCOUR: To abrade and wear away; used to describe the wearing away of terrace or diversion channels or stream beds.

SECONDARY POLLUTANTS: Those pollutants that result from the chemical reactions involving primary pollutants or related atmospheric contaminants (i.e. oxidants from photochemical activity).

SECONDARY WASTE TREATMENT: The removal of up to 90 percent of the organic material from sewage by the metabolic action of bacteria. See waste treatment.

SEDIMENT: Mineral or organic solid material which is either in suspension, is being transported, or has been moved from its site of origin to another resting place by air, water, gravity, or ice.

SEDIMENT DISCHARGE: The quantity of sediment, measured in dry weight or by volume, transported through a stream cross-section in a given time. Sediment discharge consists of both suspended load and bedload.

SEPTIC TANK: An underground tank used for the deposition of domestic wastes. Bacteria in the wastes decompose the organic matter, and the sludge settles to the bottom. Effluent flows through drains into the ground. Sludge is pumped out at regular intervals.

SETTLING BASIN: An enlargement in the channel of a stream to permit the settling of debris carried in suspension.

SEWAGE: The total organic waste and wastewater generated by residential and

commercial establishments.

SEWAGE SLUDGE: Settled sewage solids combined with varying amounts of water and dissolved materials that is removed from sewage by screening, sedimentation, chemical precipitation, or bacterial digestion.

SHRINK-SWELL POTENTIAL: Susceptibility to volume change due to loss or gain in moisture content.

SLOPE: A slant or incline of the surface, usually measured in degrees or percent from the horizontal and characterized by direction (exposure).

SOD: Vegetation which grows so as to form a mat.

SOIL ABSORPTION SYSTEM: Any system that utilizes the soil for subsequent absorption of treated sewage, such as an absorption trench, seepage bed, or seepage pit.

SOIL IMPROVEMENT: The processes for, or the results of, making the soil more productive for growing plants by drainage, irrigation, addition of fertilizers and soil amendments, and other methods.

SOLID WASTE: Useless, unwanted, or discarded material with insufficient liquid content to be free flowing. See waste.

SOLID WASTE DISPOSAL: The ultimate disposition of refuse that cannot be salvaged or recycled.

SOLID WASTE MANAGEMENT: The purposeful, systematic control of the generation, storage, collection, transport, separation, processing recycling, recovery, and disposal of solid wastes.

SPECIES COMPOSITION: The relative proportions of various plant species in the total cover on a given area. It may be expressed in terms of cover, density, weight, etc.

SPOILBANK: A pile of soil, subsoil, rock, or other material excavated from a drainage ditch, pond, or other cut.

SPRING DEVELOPMENT: Improving springs and seeps by excavating, cleaning, capping, or providing collection and storage facilities for water. Spring developments are usually made to improve the distribution of livestock or recreation water supplies. Spring development may include collection systems, spring boxes and outlet pipes. Erosion control benefits may include better distribution of cattle grazing by improved water distribution facilities thereby reducing the possibility of overgrazing and erosion.

STABILIZED GRADE: The slope of a channel at which neither erosion nor deposition occurs.

STILLING BASIN: An open structure or excavation at the foot of an overfall, chute, drop or spillway to reduce the energy of the descending stream.

STREAMBANKS: The usual boundaries, not the flood boundaries, of a stream channel. Right and left banks are named facing downstream.

STREAMBANK PROTECTION: Stabilizing and protecting banks of streams or excavated channels against scour and erosion by vegetation or structural means. Channel grade must be controlled before permanent streambank protection measures are installed unless the protection can be safely and economically constructed to a depth well below the anticipated depth of bottom scour. Streambank protection works can include many methods such as banksloping and vegetation, riprap, concrete paving, jetties, revetments or fencing. Each site must be considered individually and designed as an individual project.

STREAM CHANNEL STABILIZATION: Stabilizing the channel of a stream with suitable structures to control aggradation or degradation in a stream channel. Such structures may be concrete, masonry, timber or gabion check dams for major streams. Post, wire and brush may serve the purpose for smaller streams. Each site must be considered and designs made on an individual basis.

STREAM LOAD: Quantity of solid and dissolved material carried by a stream.

STREAMSIDE MANAGEMENT AREA (SMA): A designated area that consists of the stream itself and an adjacent area of varying width where management practices that might affect water quality, fish, or other aquatic resources are modified. The SMA is not an area of exclusion, but an area of closely managed activity. It is an area that acts as an effective filter and absorptive zone for sediments; maintains shade; protects aquatic and terrestrial riparian habitats; protects channels and streambanks; and promotes floodplain stability.

STRIP MINING: A process in which rock and top soil strata overlying ore or fuel deposits are scraped away by mechanical shovels. Also known as surface mining.

STUBBLE MULCHING: Leaving the stubble of crops or crop residue essentially in place on the land as a surface cover during fallow and the growing of a succeeding crop. Tilling, planting and cultivating operations are performed in such a way as to keep protective amounts of vegetation on the soil surface. Soil erosion losses are reduced by providing a cover along with improved physical condition and water infiltration.

SUBIRRIGATION: Applying irrigation water below the ground surface either by raising the water table within or near the root zone, or by using a buried perforated or porous pipe system that discharges directly into the root zone.

SUBSURFACE DRAIN: A conduit, such as tile, pipe, or tubing, installed beneath the ground surface to collect and convey drainage water. Drains are used for lowering or controlling ground water or surface runoff in areas having a high water table.

SURFACE WATER: All water whose surface is exposed to the atmosphere.

SUSPENDED LOAD: Solids or sediments suspended in a fluid by the upward components of turbulent currents or by colloidal suspension.

SUSPENDED SOLID: Any solid substance present in water in an undissolved state, usually contributing directly to turbidity.

TAILINGS: 1. In agriculture, forage material that falls behind the harvesting combine. 2. In mining, second grade or waste material derived when raw material is screened or processed.

TAILWATER: 1. In hydraulics, water in a river or channel, immediately downstream from a structure. 2. In irrigation, water that reached the lower end of a field.

TERTIARY WASTE TREATMENT: Wastewater treatment beyond the secondary or biological stage that includes removal of nutrients such as phosphorus and nitrogen, and a high percentage of suspended solids; also known as advanced waste treatment.

THERMAL POLLUTION: A term describing the act of changing the natural temperatures of bodies of water by discharging warmer water into them.

THINNING: Cutting within tree stands to provide adequate growing space and accelerate diameter growth but also, by suitable selection, to improve the average form of the remaining trees.

TOPOGRAPHY: The relative positions and elevations of the natural or manmade features of an area that describe the configuration of its surface.

TURBIDITY: 1. The cloudy condition caused by suspended solids in a liquid. 2. A measurement of the suspended solids in a liquid.

UNIVERSAL SOIL LOSS EQUATION: An equation used to design water erosion control systems: A = RKLSPC wherein A is average annual soil loss in tons per acre per year; R is the rainfall factor; K is the soil erodibility factor; L is the length of slope; S is the percent slope; P is the conservation practice factor; and C is the cropping and management factor.

UNPALATABLE SPECIES: Species that are not readily eaten by animals.

URBAN RUNOFF: Storm water from city streets and gutters that usually contains litter and organic and bacterial wastes.

URBAN WASTE: A general term used to categorize the entire waste stream from the urban area.

WASTES: Material that has no original value or no value for the ordinary or main purpose of manufacture or use; damaged or defective articles of manufacture; superfluous or rejected matter or refuse.

WASTE PROCESSING: Operations such as shredding, compaction, composting and incineration, in which the physical or chemical properties of wastes are changed.

WASTE TREATMENT: Any of the physical or chemical processes whereby the qualities of given waste are made more compatible or acceptable to man and his environment.

WATER DISPOSAL SYSTEM: The complete system for removing excess water from land with minimum erosion. For sloping land, it may include a terrace system, terrace

outlet channels, dams and grassed waterways. For level land, it may include only surface drains or both surface and subsurface drains.

WATER IMPOUNDMENT: A body of water created or stored by impoundment structures such as dams, dikes, and levees.

WATER POLLUTION: The addition of harmful or objectionable material to water in concentrations or sufficient quantities to adversely affect its usefulness or quality.

WATER RESOURCES: The supply of surface and ground water in a given area.

WATER RIGHTS: Legal rights to the use of water. They consist of riparian rights and those acquired by appropriation and prescription. Riparian rights are those rights to use and control water by virtue of ownership of the bank or banks. Appropriate rights for the exclusive use of water are those acquired by an individual, based strictly on priority appropriation and application of the water to beneficial use and without limitation of the place of use to riparian land. Prescribed rights are those to which legal title is acquired by long possession and use without protest of other parties.

WATERSHED: A natural hydrologic drainage area.

WATER TABLE: The upper surface of ground water or that level below which the soil is saturated with water; locus of points in soil water at which the hydraulic pressure is equal to atmospheric pressure.

WATERWAY: A natural course or constructed channel for the flow of water.

WEED: An undesired, uncultivated plant.

WETLANDS: Areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; wetlands generally include swamps, marshes, bogs, and similar areas. (This definition is consistent with the Federal definition 40 CFR 230.3; December 24, 1989. As amendments are made to the wetland definition, they will be considered applicable to this guidance.)

WIND EROSION: The detachment and transportation of soil by wind.